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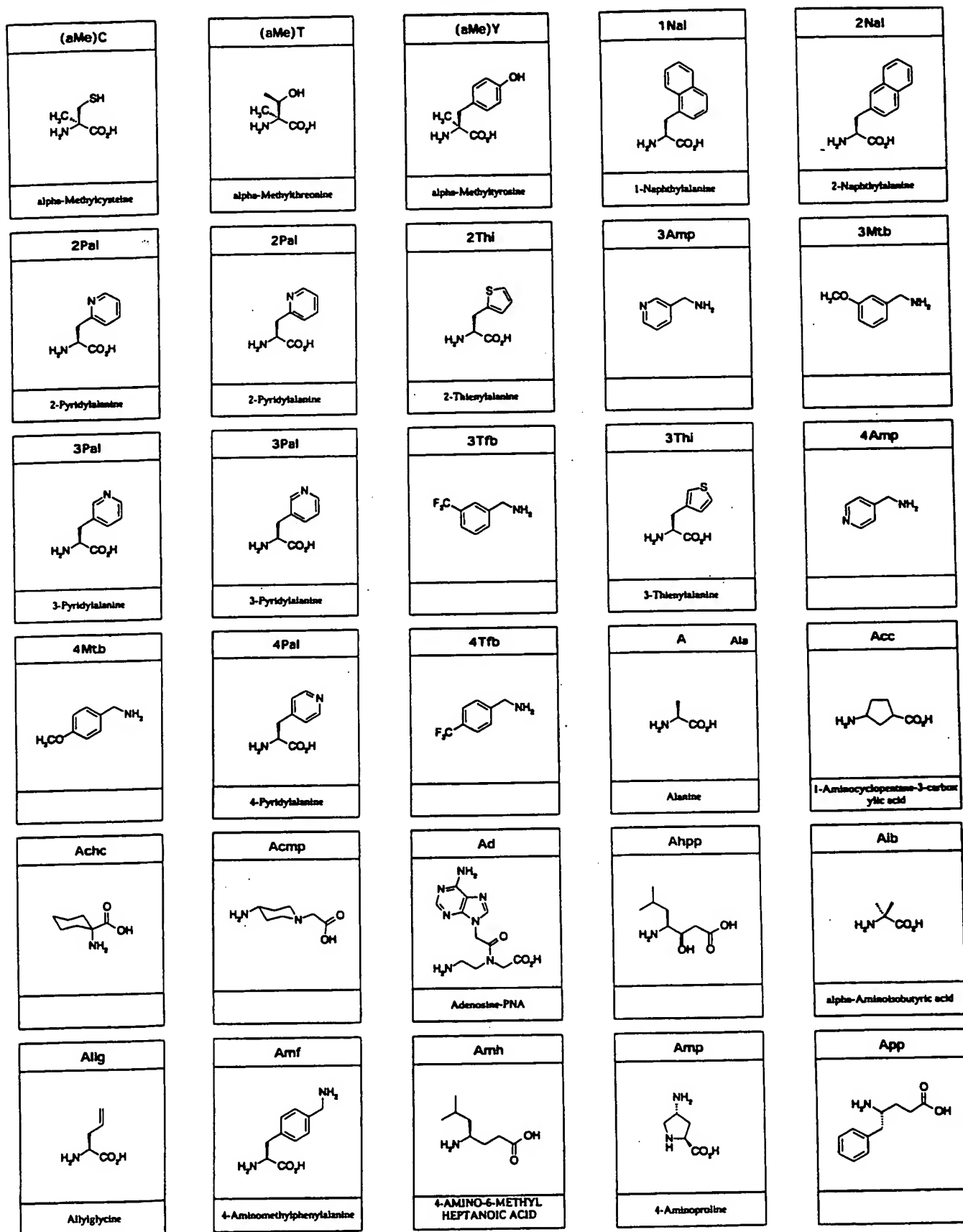
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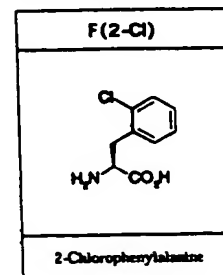
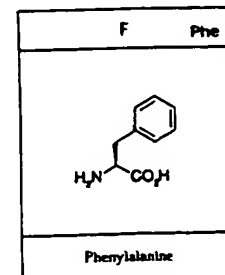
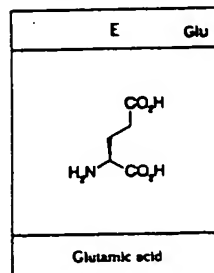
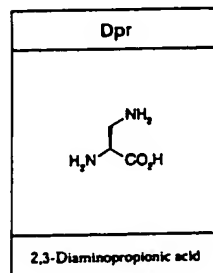
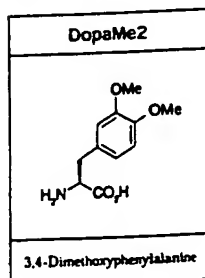
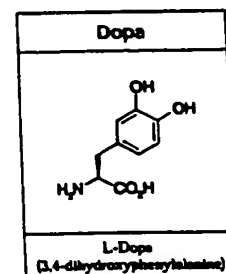
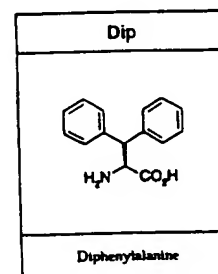
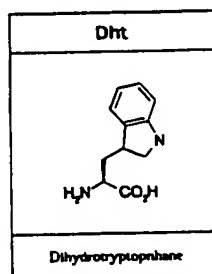
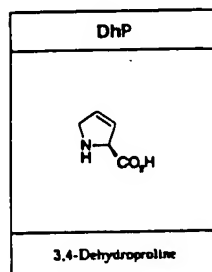
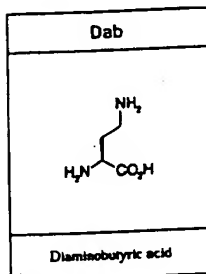
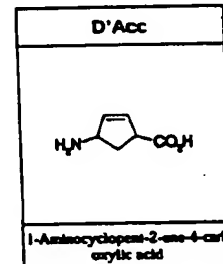
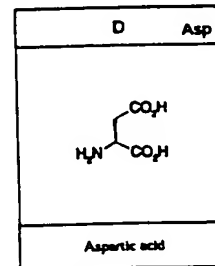
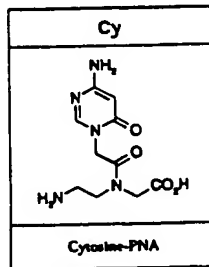
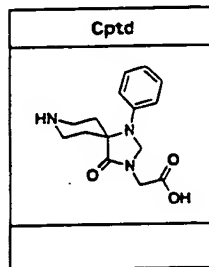
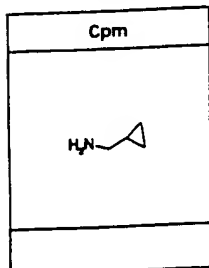
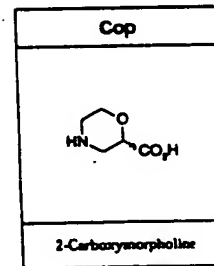
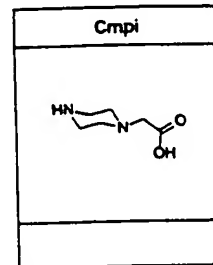
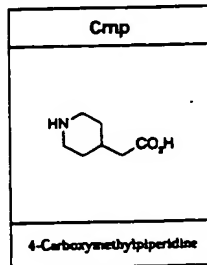
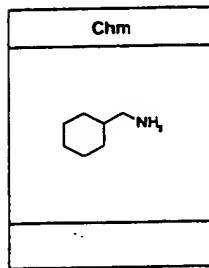
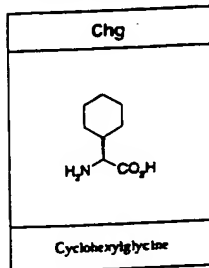
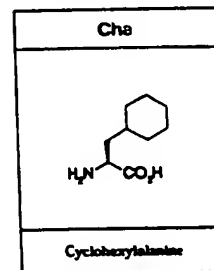
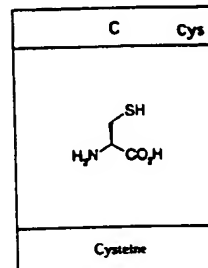
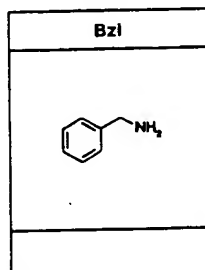
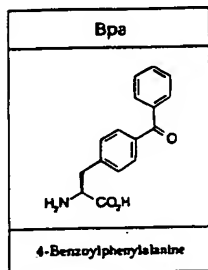
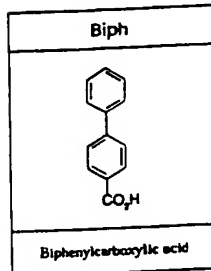
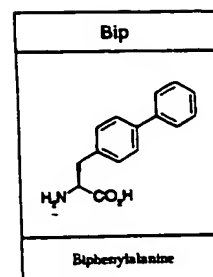
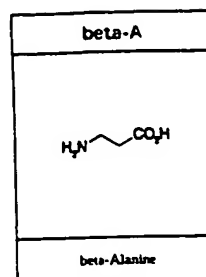
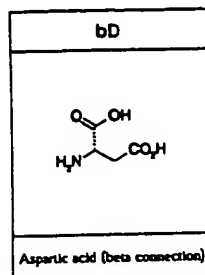
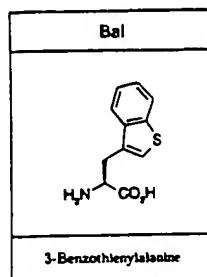
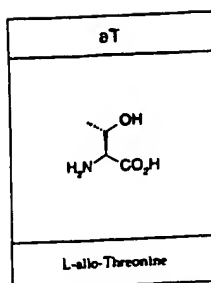
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Figure 1



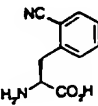
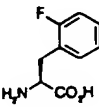
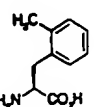
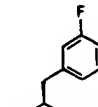
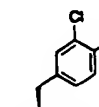
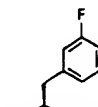
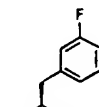
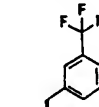
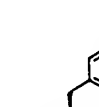
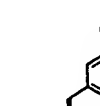
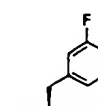
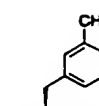
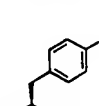
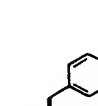
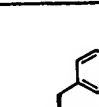
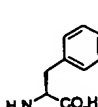
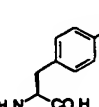
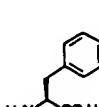
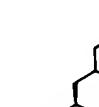
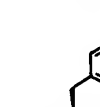
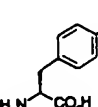
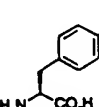
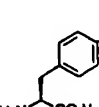
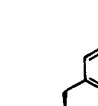
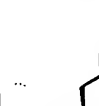
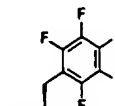


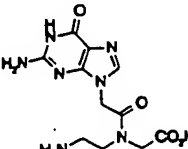

Applicant(s): Zhaoda Zhang et al.

## PEPTIDE-BASED MULTIMERIC TARGETED CONTRAST AGENTS



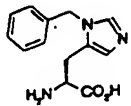
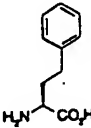
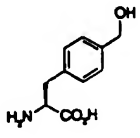
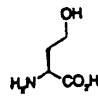
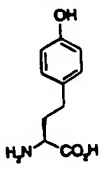
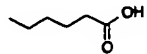
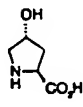
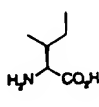
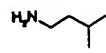

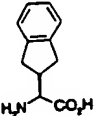
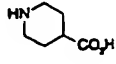
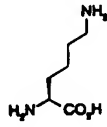

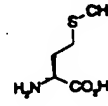
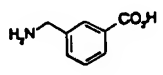
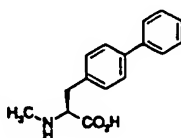
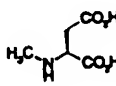
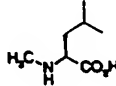
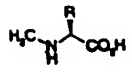
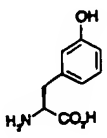
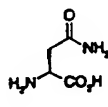
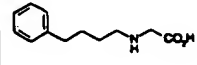
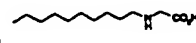
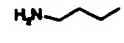
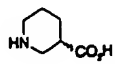
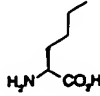
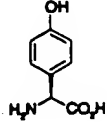
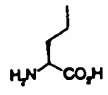
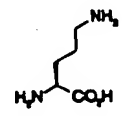
Applicant(s): Zhaoda Zhang et al.

## PEPTIDE-BASED MULTIMERIC TARGETED CONTRAST AGENTS

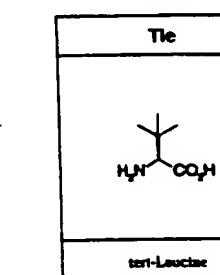
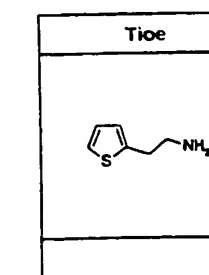
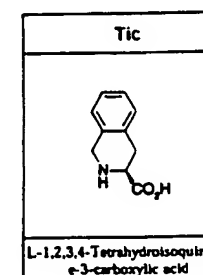
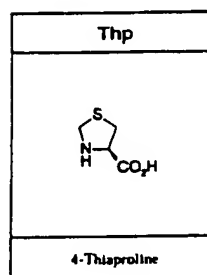
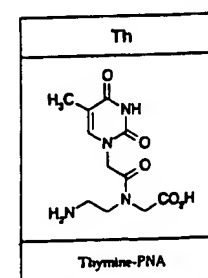
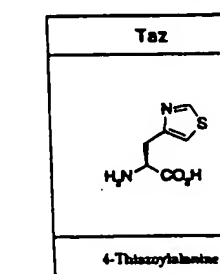
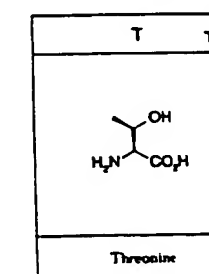
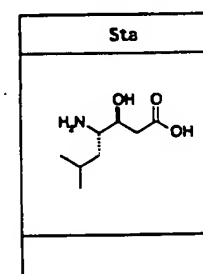
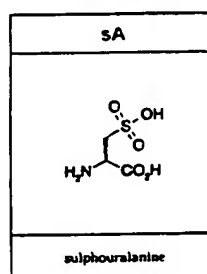
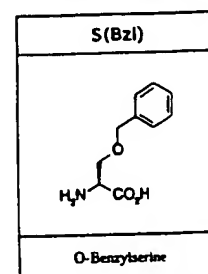
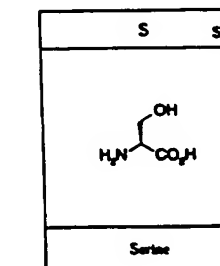
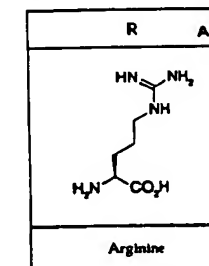
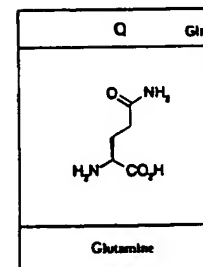
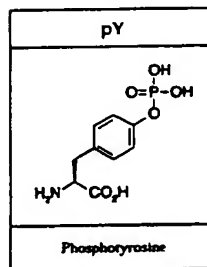
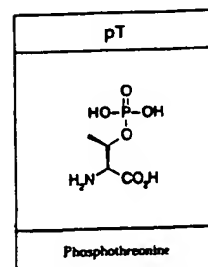
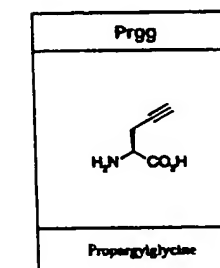
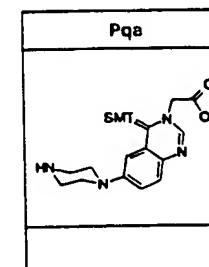
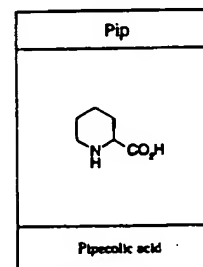
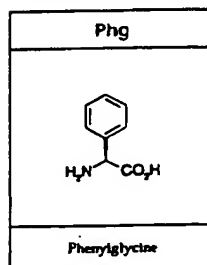
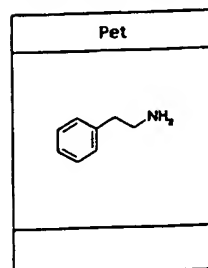
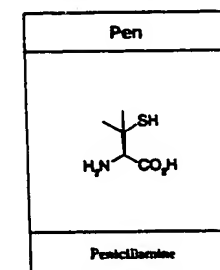
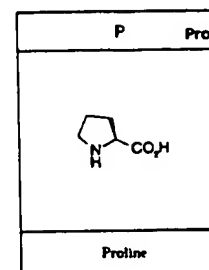
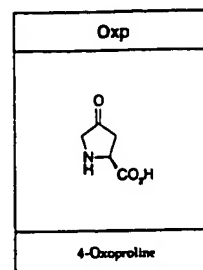
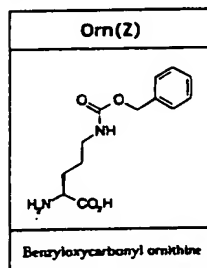
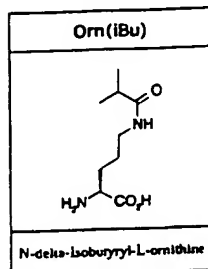
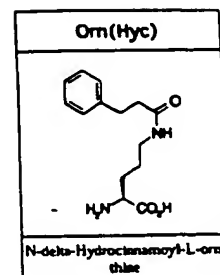
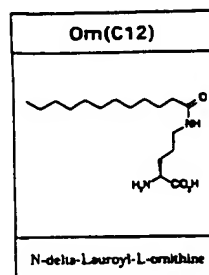
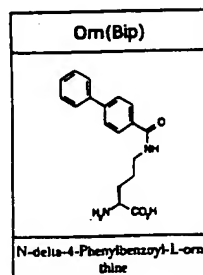
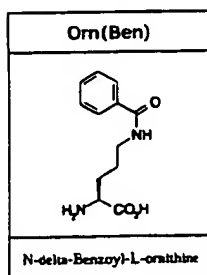
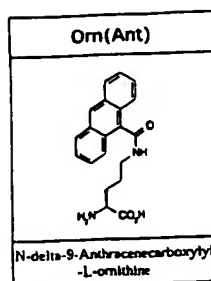
<b>F(2-CN)</b>  2-Cyanophenylalanine	<b>F(2-F)</b>  2-Fluorophenylalanine	<b>F(2-Me)</b>  2-Methylphenylalanine	<b>F(3,4,5-F3)</b>  3,4,5-Trifluorophenylalanine	<b>F(3,4-Cl2)</b>  3,4-Dichlorophenylalanine
<b>F(3,4-F2)</b>  3,4-Difluorophenylalanine	<b>F(3,5-F2)</b>  3,5-Difluorophenylalanine	<b>F(3-CF3)</b>  3-Trifluoromethylphenylalanine	<b>F(3-Cl)</b>  3-Chlorophenylalanine	<b>F(3-CN)</b>  3-Cyanophenylalanine
<b>F(3-F)</b>  3-Fluorophenylalanine	<b>F(3-Me)</b>  3-Methylphenylalanine	<b>F(4-Br)</b>  4-Bromophenylalanine	<b>F(4-CF3)</b>  4-Trifluoromethylphenylalanine	<b>F(4-Cl)</b>  4-Chlorophenylalanine
<b>F(4-CN)</b>  4-Cyanophenylalanine	<b>F(4-Et)</b>  4-Ethylphenylalanine	<b>F(4-F)</b>  4-Fluorophenylalanine	<b>F(4-I)</b>  4-Iodophenylalanine	<b>F(4-Me)</b>  4-Methylphenylalanine
<b>F(4-NH2)</b>  4-Aminophenylalanine	<b>F(4-NO2)</b>  4-Nitrophenylalanine	<b>F(4-OMe)</b>  Methoxytyrosine	<b>F(4-tBu)</b>  4-tert-Butylphenylalanine	<b>F(4-X)</b>  4-Substituted phenylalanine
<b>F(F5)</b>  Pentafluorophenylalanine	<b>Fur</b>  2-Furylalanine	<b>G Gly</b>  Glycine	<b>Gu</b>  Guanosine-PNA	<b>H His</b>  Histidine

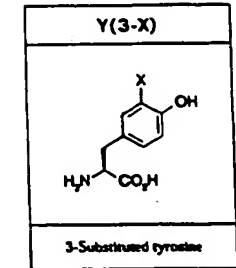
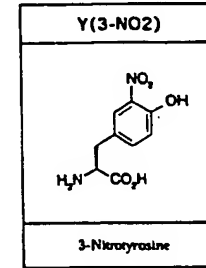
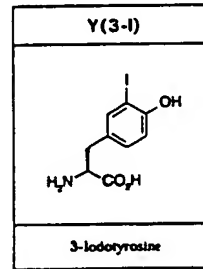
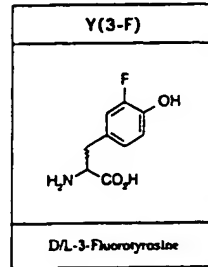
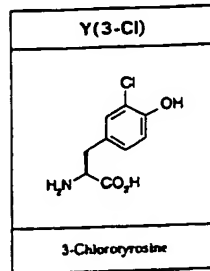
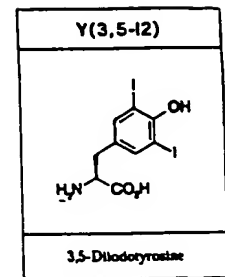
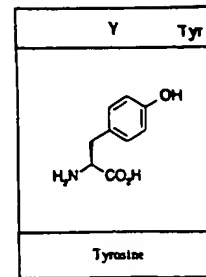
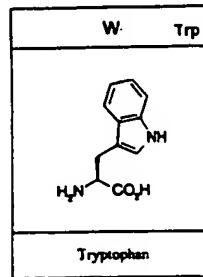
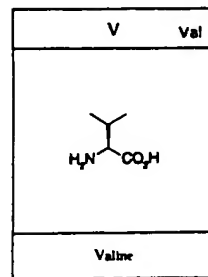
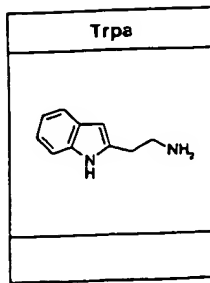
Applicant(s): Zhaoda Zhang et al.

## PEPTIDE-BASED MULTIMERIC TARGETED CONTRAST AGENTS

<b>H(Bzl)</b>  <b>N-Benzylhistidine</b>	<b>Hfe</b>  <b>Homophenylalanine</b>	<b>Hmf</b>  <b>4-Hydroxymethylphenylalanine</b>	<b>Hse</b>  <b>Homoserine</b>	<b>hTyr</b>  <b>Homotyrosine</b>
<b>Hx</b>  <b>Hexanoic acid</b>	<b>Hyp</b>  <b>4-Hydroxyproline</b>	<b>I Ile</b>  <b>Isoleucine</b>	<b>Ial</b>  	<b>Ibu</b>  
<b>Igl</b>  <b>2-Indanylglycine</b>	<b>Inp</b>  <b>Isopipecolic acid</b>	<b>K Lys</b>  <b>Lysine</b>	<b>L Leu</b>  <b>Leucine</b>	<b>M Met</b>  <b>Methionine</b>
<b>Mamb</b>  <b>m-Aminomethylbenzoic acid</b>	<b>MeBip</b>  <b>N-Methylbiphenylalanine</b>	<b>MeD</b>  <b>N-Methylaspartic acid</b>	<b>MeL</b>  <b>N-Methylleucine</b>	<b>MeR</b>  <b>N-Methylated amino acid</b>
<b>mTyr</b>  <b>meta-Tyrosine</b>	<b>N Asn</b>  <b>Asparagine</b>	<b>n(4-PhBu)G</b>  <b>N-(4-Phenylbutyl)glycine</b>	<b>n(decyl)G</b>  <b>N-Decylglycine</b>	<b>Nbu</b>  
<b>Nip</b>  <b>Nipepicolic acid</b>	<b>Nle</b>  <b>Norleucine</b>	<b>nTyr</b>  <b>Nortyrosine</b>	<b>Nva</b>  <b>Norvaline</b>	<b>Orm</b>  <b>Ornithine</b>

## PEPTIDE-BASED MULTIMERIC TARGETED CONTRAST AGENTS





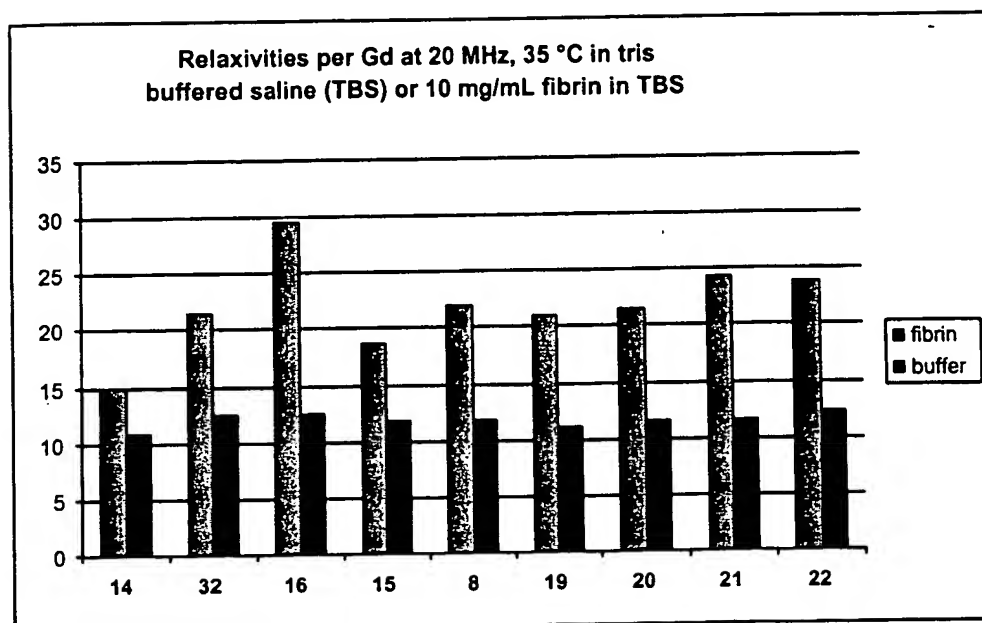


FIG. 2



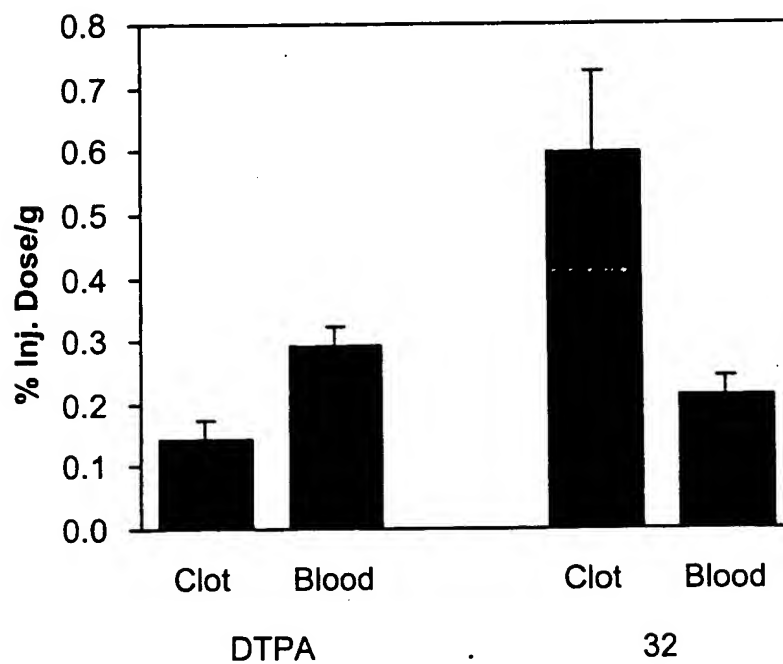
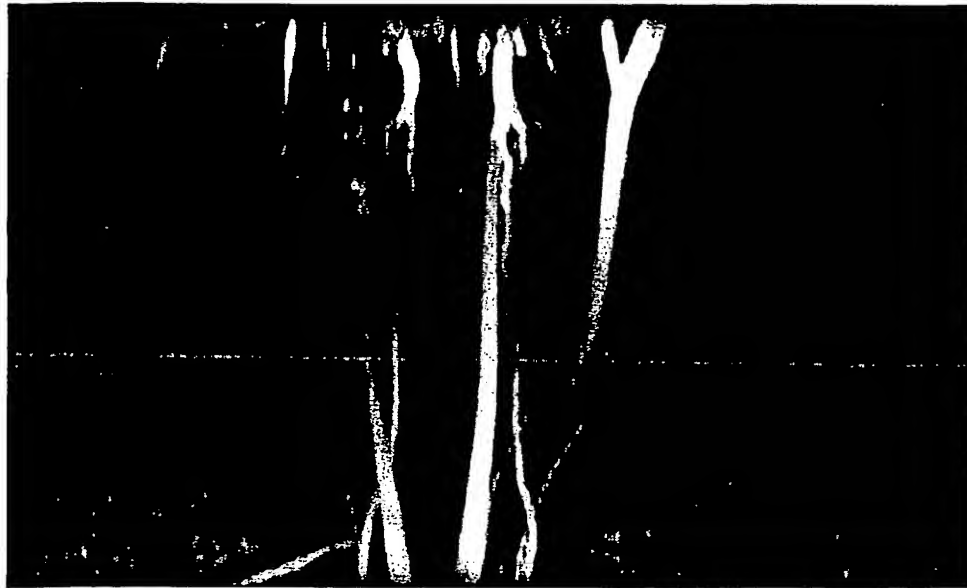


FIG. 3

PEPTIDE-BASED MULTIMERIC TARGETED CONTRAST  
AGENTS



*A*



*B*

FIG 4